

## **REMARKS**

In the Official Action, the Examiner rejected claims 1-32. Claims 25 and 26 have been amended to set forth the claimed subject matter more clearly. Reconsideration of above-referenced application is respectfully requested.

### **Rejections Under 35 U.S.C. § 112**

The Examiner rejected claim 26 under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Claim 26 has been amended such that proper antecedent basis is provided. Specifically, “cardiac catheterization lab” has been replaced with “data acquisition workstation,” which has antecedent basis in claim 25, on which claim 26 depends. Applicants respectfully submit that this amendment is sufficient to overcome the Examiner’s rejection under 35 U.S.C. § 112, second paragraph.

### **Rejections Under 35 U.S.C. § 102**

The Examiner rejected claims 25, 27-30 and 32 under 35 U.S.C. § 102(e) as being anticipated by Soukal (U.S. Pat. No. 6,035,328). Specifically, the Examiner stated:

Soukal discloses a medical therapeutic and/or diagnostic system with an examination device 3 coupled to a server 8, which corresponds to the claimed data acquisition workstation, and a plurality of workstations 9.

Applicants respectfully traverse this rejection. Anticipation under section 102 can be found only if a single reference shows exactly what is claimed. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 U.S.P.Q. 773 (Fed. Cir. 1985). For a prior art reference to anticipate under section 102, every element of the claimed invention must be identically shown in a single reference. *In re*

*Bond*, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). To maintain a proper rejection under section 102, a single reference must teach each and every element or step of the rejected claim. *Atlas Powder v. E.I. du Pont*, 750 F.2d 1569 (Fed. Cir. 1984).

The present application is directed to a distributed multi-user system for real time data access during cardiology procedures. Page 1, lines 10-11. More specifically, the present application is directed to an interactive computer network which can be used to simultaneously display and manipulate data from a cardiology procedure on a plurality of devices and at a plurality of locations. Page 1, lines 11-14. As stated in the background of the present application, an electrophysiology study (EPS) involves the pacing and recording of electrical signals within localized areas of the heart. Page 2, lines 6-7. To perform such procedures as an EPS, a cardiac catheterization lab is provided in which multiple clinicians can diagnose and treat heart conditions. Page 3, lines 27-29. It would be advantageous for clinicians to be able to interact with and manipulate the clinical data simultaneously during an EP procedure. Page 3, lines 30-32. However, current techniques to accommodate the complex workflow in a cardiac catheterization lab, such as the workflow required during an EP procedure, are insufficient to meet these needs. Page 4, lines 8-9. Up to 128 channels of data may need to be recorded at a rate of 1K-byte/sec making the acquisition, displaying and manipulation of EP data difficult to manage. Page 4, lines 10-11.

Accordingly, independent claim 25 recites a system for performing an electrophysiology procedure. Specifically, claim 25 recites, "A system comprising a device configured to perform an electrophysiology procedure and further configured to produce a plurality of channels of data as a result of the electrophysiology procedure; a data acquisition workstation electrically coupled to the

device and configured to acquire the plurality of channels of data produced during the electrophysiology procedure; and a plurality of client workstations coupled to the data acquisition workstation and configured to receive the plurality of channels of data from the data acquisition workstation.”

The Soukal reference does *not* disclose a system having a device configured to perform an electrophysiology procedure, much less a data acquisition workstation configured to acquire data produced during the electrophysiology procedure and a plurality of client workstations configured to receive the data from the data acquisition workstation. Conversely, the Soukal reference discloses “a medical therapeutic and/or diagnostic system with at least one operating means with allocated computing means and control means communicating therewith for controlling the operation of the system.” Col 1, lines 6-10. “Each operating means has computing means wherein a special software is filed which is directed to the respective medical-technical application for which it has been developed.” Col. 1, lines 18-21. “This special software is provided in each of the operating means, since each of the operating means works quasi-‘independently.’” Col. 1, lines 21-23. “Besides the inflexibility of this system, a further disadvantage is that to modify the stored software, the modification must be recorded individually for each operating means, which is cumbersome and time-consuming.” Col. 1, lines 24-27. “In contrast to known systems, at least part of the operating and/or processing data previously stored in the computing unit of the operating means, i.e., the system’s specific technical software, is not stored there anymore, but rather is only implemented in the control means, which delivers the software to the operating means only as needed, such as in the startup of the operating means or the like.” Col.1, lines 40-47.

It is clear that the Soukal reference is directed to a system that permits the sharing of the *operating software* as opposed to the *data acquired* during a test procedure. The Figure, as well as the detailed description, fail to disclose anything about the gathering, storing or distribution of data acquired during a test procedure. *See* Figure and Col. 3, lines 20-62. Rather, the Soukal reference discloses a mechanism (control unit 8) for sharing the software necessary to conduct the test procedure, whether it be internally (at operating units 4 and 6) or externally (at operating units 9 or 11).

Further, even if the Soukal reference were directed to the sharing of test data, it is clear that the Soukal reference does not disclose a system configured to perform electrophysiology procedures. Soukal discloses an exemplary system, such as an X-ray system or a system for shock wave processing. Col. 1, lines 13-15. As previously described in the background of the present application, data produced during EP procedures may be extremely difficult to acquire, display and manipulate due to the large amount of data (e.g. up to 128 channels) and the high data rate (e.g. 1 K-byte/sec) during the EP procedure. Accordingly, it would be inconsistent with the Soukal reference to suggest that the system of the Soukal reference could be used in an electrophysiology procedure without any further disclosure relating to the system. While Applicants do not agree with the Examiner's rejection, claim 25 has been amended to further clarify the electrophysiology data as being a plurality of channels of data to clarify and distinguish the presently claimed system as pertaining specifically to an electrophysiology procedure. It is clear that there is nothing in the Soukal reference that suggests that the disclosed system could possibly be used for electrophysiology procedures.

Thus, for at least these reasons, it is clear that the Soukal reference does not disclose all of the elements recited in claim 25. Therefore, claim 25 cannot possibly be anticipated by the Soukal reference. Further, dependent claims 27-30 and 32 cannot be anticipated by the Soukal reference based on their dependency on allowable base claim 25. With specific reference to the additional subject matter recited in claim 28, it should be clear that the Soukal reference does not disclose anything about the displaying of data, much less that the system is “configured to *simultaneously* display the data on the plurality of client workstations,” as recited in claim 28. With specific reference to claim 29, the Soukal reference does not disclose a publisher “configured to receive the data from the data acquisition workstation *during* the electrophysiology procedure and further configured to transmit the data to the plurality of client workstations *during* the electrophysiology procedure,” as recited in claim 29. Thus, claims 28 and 29 are also allowable based on the subject matter that they separately recite. Because the Soukal reference does not disclose all of the elements recited in the present claims, Applicants respectfully request withdrawal of the Examiner’s rejection and allowance of claims 25, 27-30 and 32.

### **Rejections Under 35 U.S.C. § 103**

The Examiner rejected claims 1-24 and 26 under 35 U.S.C. § 103(a) as being unpatentable over Soukal in view of Budd et al. (U.S. Pat. No. 5,662,108). Specifically, the Examiner stated:

Soukal discloses a medical therapeutic and/or diagnostic system with a central server 8 and a plurality of workstations 9. Data transmitting acts as claimed is at least implied by Soukal. Soukal does not disclose the cardiac catheterization procedure. Budd et al. teaches that it is known to perform a cardiac catheterization procedure as specified in the claims. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the medical data processing system of Soukal in combination with a cardiac catheterization procedure and system, as taught by Budd et al., because this merely involve

combining elements of art recognized suitability for an intended purpose. See MPEP § 2144.07.

Applicants respectfully traverse this rejection. The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (PTO Bd. App. 1979). Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion support the combination. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). Accordingly, to establish a *prima facie* case, the Examiner must not only show that the combination includes all of the claimed elements, but also present a convincing line of reasoning as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985). When prior art references require a selected combination to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gained from the invention itself, i.e., something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination. *Uniroyal Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 U.S.P.Q.2d 1434 (Fed. Cir. 1988).

Claims 1 and 13 each recite, in relevant part, a method of accessing a study record taken during a cardiac catheterization procedure, comprising the acts of transmitting data from a catheter to a data collection device, transmitting the data from the data collection device to a central publisher, replicating the data, transmitting the replicated data from the central publisher to a plurality of client workstations, and simultaneously displaying the data on the plurality of client workstations. The cited combination does not show the elements set forth in claims 1 and 13. As recognized by the Examiner, the Soukal reference does not disclose a cardiac catheterization

procedure. However, contrary to the Examiner's assertion, the Soukal reference does not disclose anything regarding the handling of data, much less the handling of the highly complex data produced during a cardiac catheterization procedure, as previously discussed with regard to claim 25. More specifically, the Soukal reference does not disclose replicating the data, transmitting the replicated data from a central publisher to a plurality of client workstations or simultaneously displaying the data on the plurality of client workstations, as recited in the present claims. As clearly appreciated by the Examiner, while the Budd et al. reference may disclose a cardiac catheterization procedure, it does not disclose replicating the data, transmitting the replicated data from a central publisher to a plurality of client workstations or simultaneously displaying the data on the plurality of client workstations. Therefore, the cited combination does not even disclose all of the claimed elements, much less provide any suggestion to combine these disparate teachings to render the claimed subject matter obvious.

In view of the remarks set forth above, Applicants respectfully submit that the subject matter of claims 1-24 is not rendered obvious by the cited combination. Accordingly, Applicants request withdrawal of the Examiner's rejection and allowance of claims 1-24. Further, Applicants respectfully submit that claim 26 is allowable based on its dependency on claim 25 and for the reasons set forth above with respect to the rejection under 35 U.S.C. § 102(e). Accordingly, Applicants request withdrawal of the Examiner's rejection and allowance of claim 26.

The Examiner rejected claim 31 under 35 U.S.C. § 103(a) as being unpatentable over Soukal in view of Eady et al. (U.S. Pat. No. 6,304,788 B1). Applicants respectfully traverse this rejection for the same reasons discussed above with respect to allowable base claim 25. Applicants note that the Eady et al. reference does nothing to obviate the deficiencies of the Soukal reference.

Because neither reference, alone or in combination, discloses all of the elements recited in claim 25, on which claim 31 depends, the cited combination cannot possibly render the claimed subject matter obvious. Accordingly, Applicants respectfully request withdrawal of the Examiner's rejection and allowance of claim 31.

### **Conclusion**

In view of the remarks and amendments set forth above, Applicants respectfully request reconsideration of the Examiner's rejections and allowance of claims 1-32. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

### **Appendix**

Attached hereto as an Appendix is a clean version of the changes made by the current amendment, entitled "**Clean Version of Claim Amendments.**"

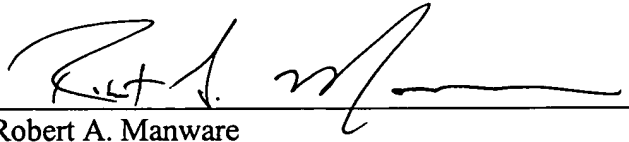
### **General Authorization for Extensions of Time**

In accordance with 37 C.F.R. § 1.136, Applicants hereby provide a general authorization to treat this and any future reply requiring an extension of time as incorporating a request therefor. Furthermore, Applicants authorize the Commissioner to charge the appropriate fee for any extension of time to Deposit Account No. 06-1315; Order No. GEMS:0096/FLE (31-CD-5622).



Respectfully submitted,

Date: September 3, 2002

A handwritten signature in black ink, appearing to read 'R. A. Manware', written over a horizontal line.

Robert A. Manware

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